

THE PIGMIES
OF
HOMER, HERODOTUS, ARISTOTLE, PLINY, ETC.;
THE ASIATIC PIGMIES, OR NEGRITOS;
THE NEGRILLOS, OR AFRICAN PIGMIES.*

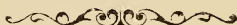
BY

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I.



HERE is probably no nation, no tribe of the human race, that has not believed in the existence of men of a stature more or less diminutive, and that has not made them play a part in its legends. One knows that the Greeks did not escape the common law, and that HOMER has borrowed from traditions, which were no doubt of a date anterior to himself, the beginning of the third chapter of the Iliad:—

- “ When by their sev’ral chiefs the troops were rang’d
- “ With noise and clamour, as a flight of birds,
- “ The men of Troy advanced ; as when the cranes,
- “ Flying the wintry storms, send forth on high

* This paper was published in the *Journal des Savants*, Février, 1881, and Juin, 1882.

“ Their dissonant clamours, while o’er the Ocean stream,

“ They steer their course and, on their pinions, bear

“ Battle and death to the Pygmœan race.” (1)

The land of the Pigmies is not mentioned in this passage. HOMER, however, was certainly acquainted with the migrations of the cranes; he knew that they pass every year from Europe to Africa and *vice versâ*; (2) and as these birds only meet their enemies after having crossed the sea in order to escape the severity of the winter, it is evident that it is some place in Africa that the poet has fixed as the abode of these dwarfs supposed to be too small and feeble to resist the attack of their winged invaders.

Although ARISTOTLE speaks of the Pigmies with regard to the natural history of cranes, yet he says nothing of the supposed combats which have furnished HOMER with his illustration. It may be asserted that he did not believe it. This is what he says: “ The cranes pass from the plains of Scythia to the marshes of Upper Egypt, near the source of the Nile. This is the district which is inhabited by the Pigmies, the existence of whom is no fable. They are really, as has been reported, a race of men of small stature, and their horses are small also. They spend their life in caverns.” (*History of Animals.*)

Though not as explicit as might be desired, ARISTOTLE here dispenses with the exaggerations about the small size of the Pigmies, for there is a great difference between *men of small stature*, as he styles them, and miniature human beings among whom cranes are able to *bear battle and death*. In other respects, the founder of Natural Sciences may be said to have been on the track of what appears to us at the present day to be the truth.

He places the habitat of the Pigmies near the sources of the Nile, and, in fact, it was when travelling in the general direction of that river that SCHWEINFURTH discovered the race of diminutive men of whom we shall speak later on. However, ARISTOTLE places

(1) Translation of the Earl of DERBY, p. 81.

(2) AS BUFFON rightly remarks, it is these alternate migrations, in opposite directions, which caused the ancients to call the crane “*the Bird of Lybia*” as well as “*the Bird of Scythia*.” (BUFFON—*History of Birds; the Crane.*)

these sources amongst the marshes of Upper Egypt. We know now, but only within the last few years, that an hypothesis of that kind would singularly shorten the course of the Nile. These marshes exist in reality. All travellers in those regions have dwelt on the difficulties they experienced in getting across the inextricable labyrinth of channels obstructed by islets, sometimes fixed and sometimes floating, which form the *Sett*, a real vegetable barrier, of which papyrus ⁽¹⁾ and ambatch ⁽²⁾ form, so to speak, the framework, and which humbler plants, more especially the *Pistia stratiotes* (LINN.)—compared, by travellers to a small cabbage growing something after the fashion of our duck-weed—serve to consolidate.

But these swamps, which begin a little to the south of Khar-toum, become more defined towards the 9th degree of north latitude, and cease entirely before reaching Gondokoro, about the 7th degree. ⁽³⁾ It is known that the Nile takes its source much further from, and south of, the Equator. It was in our hemisphere, close to the 2nd degree of north latitude, at two or three degrees west of the great African river, and in a totally different watershed (that of the Ouellé) that SCHWEINFURTH discovered the Akkas, ⁽⁴⁾ who are evidently the small men of ARISTOTLE.

The latter mentions also the *small horses* of the Pigmies, yet no traveller has ever referred to this quadruped as forming part of the fauna of the country. One might feel inclined to find in this contradiction a motive for doubting the accuracy of the information furnished to the Greek philosopher by the travellers of his time, but an explanation can easily be given. BAKER speaks of the very small proportions of the cattle of the Baris, a negro tribe in the vicinity

(1) *Papyrus domestica*. (LINN.) This deservedly celebrated plant seems to have been formerly abundant all over Egypt. In his *Lettres sur l'Égypte*, SAVARY certifies to having seen it still in a forest near Damietta (POIRET—*Dictionnaire des Sciences Naturelles*, Art. *Papyrus*). Yet SCHWEINFURTH saw it for the first time on the banks of the Nile at 9° 30' north latitude. (*Au cœur de l'Afrique*, p. 97.)

(2) *Hermíneria* (ADAMSON); *Aldemone mirabilis* (KOTSCHY). This plant, which grows 15 and 20 feet high and has a diameter of 5 to 6 centimètres at the base, is remarkable for the very low density of its wood. It is much lighter than cork, and a man can carry on his back a raft capable of bearing eight people.

(3) *Discovery of the Albert N'yanza. New Explorations to the Source of the Nile*, by Sir SAMUEL BAKER.

(4) *Au cœur de l'Afrique*, vol. II, *passim*.

of Gondokoro. "Cows and sheep," says he, ⁽¹⁾ "are of lilliputian size." It may be that, at the time of the Egyptian domination, the horse reached those regions, and if so it must have undergone there the degeneracy noticed by the English traveller with reference to the other domestic animals.

Thus, ARISTOTLE is very positive ; what he says is partly accurate and at any rate reasonable. With PLINY we fall back into uncertainty, exaggerations and fables. He places the Pigmies, sometimes in Thrace, not far from the coast of the Euxine, ⁽²⁾ and at other times in Asia Minor, in the interior of Caria. ⁽³⁾ Twice he points to India as being the native land of these little creatures, ⁽⁴⁾ and elsewhere again, in speaking of the African races who live on the extreme boundary of Ethiopia, he says : "some authors have also "stated that the Pigmy nation exists in the marshes where the "Nile takes its rise." ⁽⁵⁾ PLINY, moreover, reproduces, without any reservation, all the stories about their battles with the cranes. It is these latter which, according to the Barbarians, expelled the Pigmies from Thrace ; ⁽⁶⁾ thanks to the annual migration of these birds, the dwarfs have the advantage of a truce every year. ⁽⁷⁾ Lastly, in a rather long passage, he sums up the different reports in the following terms : "In India, beyond the mountains (those "situated at the vernal equinox) people speak of Trispithames "and Pigmies who do not stand higher than three spithames (27 "inches). Protected as they are by their mountains from the "north wind, they enjoy a fine climate and a perpetual spring. "HOMER relates, on his part, that the cranes wage war against "them. It is also reported that, riding rams and goats, and "armed with arrows, they all go down together in the spring to the "shores of sea and there eat the eggs and young ones of these "birds ; that this expedition lasts for three months ; that otherwise "they would be unable to resist the increasing multitude of the

(1) *Discovery of the Albert N'ganza, etc.*

(2) *Histoire Naturelle*—Translation of LITRE, vol. I, p. 191a.

(3) Loc. cit., p. 227b.

(4) Loc. cit., p. 250b and 283b.

(5) PLINY, p. 271a.

(6) Loc. cit., p. 191a.

(7) Loc. cit., p. 411a.

“cranes; that their huts are made of mud, feathers and egg-shells. ARISTOTLE says that the Pigmies live in caverns, in other respects he gives the same particulars as other writers.” (1)

PLINY is not the only ancient author who has written about Asiatic Pigmies; they have also been mentioned by CTESIUS: “There exists,” says he, “in the middle of India, a race of black men called Pigmies. They speak the same language as the Indians, and are very small; the tallest men among them are two cubits high, the greater number being only one and-a-half. Their hair is very long and comes down to their knees and even lower. They have a longer beard than any other men; when it is full grown, they do away with their clothes, their hair and beard being quite sufficient to cover them. They are flat-nosed and ugly They are very skilful in the use of the bow and arrow.” (2) Truth and fable are mingled in this description as in many others less ancient. There is decidedly nothing true in what CTESIUS says about the hair and beard of these Pigmies; but we perhaps find there another example of a mistake caused sometimes by the nature of the garments worn by imperfectly known populations. These prodigious beards and long hair were no doubt mantles and girdles made of long grass. (3)

It is evident that the Greek physician has also reduced, in a fabulous proportion, the size of his miniature Indians; just, in fact, as PIGAFETTA exaggerated, in a strange manner, the height of the Patagonians. Nobody would doubt the fact that MAGELLAN and his companions were in contact with the men seen by D'URVILLE, D'ORBIGNY and MUSTERS, whose true proportions they have given us, and who still continue to be the tallest men on this globe.

The exaggerations uttered by CTESIUS must not prevent us either from acknowledging that the smallest race of India was known in his time and that it is the one he referred to.

(1) PLINY, Loc. cit., p. 283b.

(2) *History of India by Ctésias. Extracts of Photius*, which follow the translation of HERODOTUS, by LARCHER, vol. VI, § XI.

(3) Even at the present day, in the neighbourhood of Travancore, women wear no other garments. (*Traditionary Origin of Grass Aprons; Journal of the Anthropological Institute*, vol. XI, p. 356). With reference to this, I will recall the mistake that has caused the revival of the fable of *men with tails* applied to the Niams-Niams.

Some of the particulars given by him are true to this day, and we are, moreover, indebted to him for a valuable piece of information. He is the only one of all ancient writers who, in speaking of Pigmies, assigns to them a black complexion. We are perfectly aware at present that this characteristic is found, to a high degree, among the Negritos, and is persistent in Dravidians, even when strongly modified by cross-breeding.

CTESIAS also tells us that Pigmies are *flat-nosed and ugly*, a description which is entirely confirmed by M. ROUSSELET's portrait of a Djambal and by photographs taken by M. BRAU DE ST. POLLIAS. He adds that they are skilful in archery; well, we all know that from the Philippine to the Andaman Islands, the bow is a formidable weapon in the hands of the Negritos. On the whole, we may infer that CTESIAS really referred to the Negritos or to a closely allied race.

We saw just now that PLINY's assertion touching the opinion of ARISTOTLE was inexact, and there is no need to insist on that point; but the accounts collected by the celebrated Roman compiler suggest other remarks. It is difficult to understand what made him place the Pigmies in Thrace or Asia Minor; in these countries, the history of man does not, any more than that of animals, furnish any fact which, disguised by ignorance or love of the marvellous, could have served as a basis for the legends under remark. Perhaps, as M. MAURY has justly remarked, the explanation of these errors might be found in a general fact. The abode of the more or less extraordinary beings, whose existence was admitted by the ancients, was always placed by them in the remotest borders of the known world, without much concern for any precise spot or definite direction. It is from this that arise, in dealing with this fancy geography, the uncertainty and discrepancies so often noticed, and of which the history of the Pigmies affords a striking example.

Differing altogether from the countries to which the preceding remarks apply, tropical Africa and Asia present certain facts which permit the explanation, in different ways, of what the ancients said of their Pigmies, and these facts belong to the history of animals as well as to that of man,

In his *History of Birds*, and *à propos* of that of the crane, BUFFON has discussed the general bearing of the data which I have just reviewed in order to ascertain what truth there might be in them. But he leaves ARISTOTLE a little too much on one side, and attaches himself really to PLINY's assertions only. Referring what the Roman naturalist says about the annual expedition of the Pigmies to certain habits attributed to monkeys, he sees in the latter the famous dwarfs of antiquity: "It is known," says he, "that monkeys, which go about in large troops in most parts of Africa and India, are in the habit of carrying on a perpetual war against birds; they try to surprise their nests and are constantly laying snares to catch them. When the cranes arrive, they find these enemies, assembled perhaps in large numbers in order to attack this new and rich booty with the greater advantage. The birds, confident in their strength, pretty well experienced by continual fighting among themselves, and naturally disposed to it, make a vigorous defence. But the monkeys, furiously bent upon carrying away the eggs and young ones, come back constantly in bands to the attack; and, as by their tricks, antics and attitudes, they seem to imitate human actions, they have been taken by ignorant people to be an army of little men This is the origin and history of these fables." (1)

This interpretation of the old legend is simple and natural, and must have struck the attention of many. Supported by the authority of our great naturalist, it has generally been adopted. Perhaps it may still be looked upon as presenting a certain amount of truth. It may have happened, that under the influence of generally accepted beliefs, some travellers have really taken a troop of monkeys for a tribe of genuine Pigmies.

But has not man himself furnished his share of the data, true in the main and only misrepresented, for these legends, which have been handed down since HOMER? One of our colleagues, M. ROULIN, whom we have all so highly appreciated, as much for his personal character as for the soundness and diversity of his knowledge, is perhaps the first who originated this interpretation. Unfortunate-

(1) *Œuvres complètes de Buffon*—Edition revised by Mr. A. RICHARD, Professor at the Faculty of Medicine of Paris, vol. XIX, p. 337.

ly, the marginal notes made by him on a copy of *PLINY* belonging to the Institute Library, are evidently of very old date. In all probability, they were written long before the discoveries of which I shall have to speak hereafter. ⁽¹⁾ In fact, the most valuable and accurate information that has reached us, has come since his death (1873); he was consequently unable to make use of it, to throw a light on the statement of the author on whom he commented.

Although we cannot now-a-days accept the hypothesis at which be arrived, I will nevertheless say a few words about it; it is always interesting to know what has been the opinion, on a difficult subject, of a mind not only ingenious and keen in itself, but supported by extensive and varied learning.

For *ROULIN*, at the time he wrote his remarks, the Pigmies of the ancients were our circumpolar populations. Although his annotations do not actually say so, yet it is beyond doubt that the small stature of several of these tribes must have been the starting point of this interpretation. It is well known that the Laplanders were, for a long time, regarded as the smallest race on earth; certain Esquimaux vie with them in this respect, and are even smaller. ⁽²⁾ From this, to see in them the dwarfs of the old legend, is but one step.

As for the question of abode, it could not stop *ROULIN*. Have not the Pigmies been placed in Thrace and Scythia as well as in Asia and Africa? Moreover, certain peculiarities of custom render the identification still more complete. The writer reminds us that, like *PLINY*'s dwarfs, some of the northern populations live alternately, during the year, on the seaside and inland; it is also for the special purpose of eating the eggs of aquatic birds, of which they destroy an immense number, that these tribes emigrate to the coast.

As for the statement made by the Roman writer with regard to the Pigmies' huts, it might easily be explained: "It may be," says *ROULIN*, "that, in the original tradition, these huts, instead of "being built of mud and egg-shells, were simply made of earth

⁽¹⁾ These notes are written in pencil. The writing is very laboured and in many places almost rubbed out.

⁽²⁾ I shall have occasion, later on, to give comparative figures of some of these small races.

“and egg-shaped. The Esquimaux huts assume that very shape, “but are of snow.”

Lastly, tradition says that the cranes meet their enemies during their annual journey from north to south. To this, ROULIN replies : “Taking for granted that the migration of cranes takes place “between the same limits, but placing these in the swamps of Upper Egypt on one side, and in Scythia, that is, close to the glacial “zone, on the other, we see that it is in the latter region that the “Pigmies ought really to be found.”

It is now useless to discuss ROULIN's corrections, however ingenious they may be. I shall confine myself to remarking that he has neglected another passage of PLINY, a passage all the more important inasmuch as it allows us to ascertain with precision the exact point where the great naturalist placed his Asiatic dwarfs. In his description of India, we read the following : “Immediately beyond the country inhabited by the Prusians, and in the “mountains where the Pigmies are reported to live, is the Indus.” (1) The mountains in question were thus to the west of the river, and as the Pigmies resorted every year to the seaside, they could not possibly have lived very far inland ; they must consequently have inhabited the most southerly portion of the hilly region of Beloochistan. This region is situated towards the 25th and 26th degrees north latitude and 63° and 64° east longitude. Travellers have never pointed out any people of exceptionally small stature in these parts, but by advancing a little further, about two degrees more south and 25 or 26 degrees to the east, one finds, amongst the Vindhya hills, the *Bandra-Lokhs*, who were re-discovered by ROUSSELET. (2)

The name of this tribe literally means *men-monkeys* ; they are negroes of very small stature isolated amidst totally different races

(1) PLINY—*Loc. cit.*, p. 250b.

(2) *Note sur un Hô Autochtone des Forêts de l'Inde Centrale*—by M. LOUIS ROUSSELET, an Appendix to my paper called *Etude sur les Mincopies et la Race Négrito en général* (*Revue d'Anthropologie*, vol. I, p. 245) ; and *Note sur un Négrito de l'Inde Centrale* (*Bulletin de la Société d'Anthropologie*, 2nd series, vol. VII, p. 619). An English traveller had already spoken of these *Bandra-Lokhs* or *Bandar-Lokhs* ; but what he had said about them still allowed strong doubts on the subject to be entertained.

which present specimens of a complete group of continental populations, quite worthy of causing a special chapter to be added to the *History of Pigmies*. We shall study them more closely later on.

We will not insist at present on facts which we shall have to return to and discuss; what I have just said is sufficient, I think, to show that ROULIN's theory is not supported, at least in the application he made of it. We are entitled to think that, had our loyal colleague lived, he would have given it up of his own accord and without the slightest hesitation, all the more in that the fundamental part of his supposition remains true as well for Asia as for Africa. The former has also its races of dwarfs, and their being imperfectly known has, without doubt, caused legends to be applied to them which originated in the latter continent. However, in both cases similar facts have presented themselves. ARISTOTLE placed his African Pigmies—the Akkas—too far north; PLINY put his Asiatic dwarfs a great deal too much to the west, or rather to the west-north-west, whether he meant insular tribes like the Mincopies, or some closely related tribes which had remained on the continent such as the *Bandra-Lokhs* and others. Moreover, neither the Greek philosopher nor the Roman naturalist mentions the black complexion or the woolly hair of the dwarfs they speak of by hearsay. The recollection of these peculiarities was evidently lost during the long journey which the intelligence, probably scanty enough, had to make from the heart of Africa, or the extremity of India, before reaching Greece or Rome. Such an omission is strange enough when it relates to the colour of the skin, but it is less singular when it concerns the nature of the hair, for we know that the ancients simply attributed the woolly aspect of the negro's head to the heat of the sun and its crisping effect on the hair.

A contemporary of PLINY—POMPONIUS MELA—has also spoken of Pigmies. The passage he devotes to them, though very short, is nevertheless interesting. He places beyond the Arabian gulf, though in a small recess of the Red Sea, the Panchians, also called Ophiophagi, from their habit of eating snakes. He adds: "In the interior of the country was seen, in olden times, a race of very small men—the Pigmies—who became extinct in the constant wars

“they had to wage against the cranes, in order to save their fruit.” (1)

The translator of POMPONIUS MELA looks upon the *small recess in the Red Sea*, here above-mentioned, as being our present Gulf of Aden; but I should hardly fancy that the Latin geographer would have applied that expression to the vast expanse of water which extends from Cape Guardafui to the Straits of Bab-el-Mandeb. The Bay of Moscha, which penetrates far inland south-west of the straits, seems to correspond much better, in every respect, to the indication given by POMPONIUS. On the other hand, this bay is situated on the same parallel (13° N. lat.) as the commencement of the grassy region of the Nile, (2) but at about four degrees further north than the labyrinth from whence the river seems to spring. POMPONIUS does not mention the Nile; he says nothing either of the Abyssinian mountains between the African stream and the sea; he appears, therefore, to place his Pigmies on the very eastern shores of that part of the continent. —

With PLINY, POMPONIUS accepts the fable as to the cranes, and the consequent exaggeration as to the small size of their antagonists; but he differs from his fellow countryman in one important point, since he accepts the extinction of the dwarf race. What he says on that subject may perhaps have resulted from a greater knowledge of those countries—knowledge which must have done away with the old legends. There may be, however, in his account, a substratum of truth, as we shall see further on.

In speaking of these famous dwarfs of the ancients, I had to dwell first on those whom HOMER immortalised and who were placed either in Asia or in the north-eastern regions of Africa; but, a century before ARISTOTLE, HERODOTUS had also mentioned a race of Pigmies, though he did not apply that actual name to them.

We are indebted to him for having handed down to us an account

(1) *Collection des Auteurs Latins, traduits sous la direction de M. NISARD*, p. 658b.

(2) BAKER was stopped, for the first time, by the floating islands, eleven days only after having left Khartoum. The journey from the latter place to Gondokoro lasted forty-four days.

given to him by Cyrenian pilgrims, who had themselves received the information from ERARCHUS, King of the Ammonians. The latter told them that a certain number of young Nasamons had taken it into their heads to explore the desert of Lybia. Five of them, chosen by lot, started with provisions and water: "They first crossed "the inhabited region, then the wild country, after which they "reached the desert and followed a westerly course. After having "travelled in deep sand for many days, they at last perceived "trees growing in a field, and approaching picked some of the "fruits; but they had hardly begun eating them when a large "number of men, much below the average height, came down on "them and carried them away. They spoke a language unknown "to the Nasamons, and did not understand theirs. These men "led them across a marshy country to a town inhabited by black "people; near this town a large river flowed, from west to east, "and contained crocodiles." (1)

Although this account is rather brief, yet it agrees too well with our modern discoveries for us to doubt the truth of it. We know that the geographical zones pointed out by the Nasamons are still to be found. The river they discovered is the Djoliba, or Niger, which was successively taken for the Nile itself, or an affluent of Lake Tchad, until MUNGO-PARK, CAILLÉ, CLAPPERTON, the LANDER brothers, &c., acquainted us with its real course. We know also that this stream, the source of which has lately been discovered by two young Frenchmen, rises in a ramification of the inland mountain-chain which runs parallel to the north coast of the Guinea Gulf. Although Messrs. ZWEIFEL and MOUSTIER (2) were

(1) *Histoire d'Hérodote*—Translated by A. F. MIOT, vol. 1, p. 246.

(2) Many attempts had already been made to reach the source of the Niger. Major LAING and W. READE among others, failed in their endeavours. In 1879, one of the founders of the Marseilles Geographical Society, Mr. C. A. VERMINK, organised, at his own expense, an expedition that was to be scientific and commercial at the same time. He entrusted the care of carrying out his plans to two young men, who had, for a long time, been employed in his African factories. Messrs. Z. ZWEIFEL and MOUSTIER left Rotombo the 8th July, 1879. On the 25th September, they arrived near Mount Tembi (*Tembi Coundou*, the head of the Tembi), a granitic hill from which springs the Tembi, the chief branch of the Niger. Unfortunately, this source, like that which BRUCE took for the origin of the Nile, is sacred in the eyes of the natives. Tembi Seli, the high priest, forbade the French travellers going too close to it; they were only

unable, for want of proper instruments, to determine the exact position of *Mount Tembi* from which the Niger ⁽¹⁾ flows, and although they were only allowed to look at it at a distance, owing to local superstition, yet we can see by their map, published by the Geographical Society of Marseilles, that the mount is situated about $8^{\circ} 35'$ north latitude and $12^{\circ} 45'$ west longitude.

The river, at first a mere brook, runs from north to south, but soon takes a general direction from south-west to north-east, which it maintains as far as Timbuctoo, just beyond the 18th degree. ⁽²⁾ At this point it takes a sharp bend to the east as far as Bourroum ⁽³⁾ for an extent of more than three degrees of longitude, when it turns off to the S. S.W. and runs into the Gulf of Guinea. It must consequently be between the first and second degree west longitude that the Nasamons reached the Niger. It is impossible to point out with greater precision the position of the town inhabited by negroes to which the bold travellers were conducted; at all events, we feel perfectly certain that they could not mean the famous Timbuctoo, the foundation of which only dates from the fifth century of the Hegira (1100 A.D.), according to AHMED-BABA, the historian of that country. ⁽⁴⁾

HERODOTUS informs us that the young Nasamons saw crocodiles in the river they visited, and this again is perfectly accurate, more so even than might be expected at first. *A priori*, it might be supposed, not without plausible reasons, that the large reptiles

allowed to stand at a spot called Foria and gaze, at a distance, on the sacred mountain and the brook which rises from it. *Expédition C.H. Vermink. Voyage aux Sources du Niger par Z. Zweifel et M. Moustier, 1879.* (*Bulletin de la Société de Géographie de Marseille, 1880, p. 129.*)

(1) M. RABAUD, President of the Geographical Society of Marseilles, in his report on this remarkable expedition, remarks very rightly that this want of instruments is not really to be regretted. Superstition is so strong in the country visited by the two Marseilles travellers, that the use of a field-glass alone was sufficient to cause threatening demonstrations on the part of the natives, and they had to give up using it. They would certainly have been massacred had they been caught in the act of making astronomical observations.

(2) $18^{\circ} 3' 45''$ latitude and $4^{\circ} 5' 10''$ west longitude. *Annuaire du Bureau des Longitudes, 1877, p. 310.*

(3) This place is situated on the easterly angle of the Middle Niger. *Voyages et Découvertes dans l'Afrique Septentrionale et Centrale*—by Dr. H. BARTH, translated by P. ITHIER, vol. IV, p. 10.

(4) BARTH, *loc cit.*, p. 5.

living in two rivers so far apart as the Nile and the Niger, must be of different kinds. But it is not the case; the question has been specially studied in consequence of discussions which had arisen between CUVIER and GEOFFROY ST. HILAIRE. The former of these two great naturalists attached so much importance to the debate that he devoted, in his *Règne Animal*, a chapter of exceptional length ⁽¹⁾ to it.

CUVIER was convinced of the specific identity of all crocodiles inhabiting the large African rivers, whereas GEOFFROY denied it, and, in the Nile alone, asserted the existence of four distinct kinds. DUMERIL and BIBRON, in their exhaustive work on Herpetology, returned to the question with materials that had not been at the disposal of the two celebrated antagonists, and confirmed CUVIER's opinion. ⁽²⁾ In fact, the crocodile of the Niger, like that of the Senegal, is the same as the crocodile of the Nile.

Lastly, the Nasamons declared that they were taken to a town of which all the inhabitants were black, and this again is perfectly true. Although Timbuctoo was founded by the Touaregs, ⁽³⁾ who still dispute with the Berbers and Peuls the right of sovereignty over the city and the region drained by the central portion of the Niger, ⁽⁴⁾ yet we know that they are strangers to the country, and have settled there only at a comparatively recent date. In the tenth century, according to BARTH, the Negro land still extended as far as the 20th degree of latitude. ⁽⁵⁾ At that time, and *a fortiori* in the days of HERODOTUS, the whole of that region must have been occupied by a black race.

(1) *Le Règne Animal distribué d'après son Organisation pour servir de Base à l'Histoire des Animaux et d'Introduction à l'Anatomie comparée*—by Baron CUVIER, new edition (2nd), 1820, vol. II, p. 21.

(2) Collection of the *Suites de Buffon*, published by RORET: *Histoire Naturelle des Reptiles*—by MM. C. DUMERIL and BIBRON, vol. III, p. 104.

(3) According to AHMED-BABA, Timbuctoo was founded in the 5th century of the Hegira (1100 A. D.) by Touaregs who were in the habit of halting at that spot. (BARTH.)

(4) The Peuls took possession of Timbuctoo in 1826. In 1844, they were driven away by EL-MOUCHTAR, chief of some Berber tribes who had made an alliance with the Touaregs. (BARTH, p. 32.)

(5) BARTH, p. 10.

We may, accordingly, infer that the *black men* seen by the Nasamons were real negroes, and certainly had woolly hair. Travellers have, however, neglected to mention the latter peculiarity. Their silence on the subject justifies, as may be seen, the way in which I have interpreted the same omission respecting the Asiatic negro dwarfs.

Therefore, whether it is a question of country, streams, animals or men, everything is accurate in the account so far given by the Greek historian. What motive, moreover, could we have for doubting the information he gives us about the race discovered by the Nasamons? None whatever. And even if our present experience had not confirmed his report, we might still have accepted it as true. But modern discoveries have further confirmed the intelligence handed down to us by HERODOTUS, at least as far as the existence of such a race is concerned.

It is otherwise with regard to its geographical position. We saw that the locality is marked out in a well defined part of the river. In fact, the most northerly station of the western Pigmies, discovered to this day, is situated in the interior of Senegambia, towards 10° of north latitude and 14° west longitude, that is to say, about 8 degrees further south and 10 degrees further west than the spot where the Nasamons were captured by the little men. ⁽¹⁾ We consequently find here again, *à propos* of Western Africa, the same difference between tradition and modern discovery, which we have already pointed out with regard to Upper Egypt and India. The dwarf race once more seems to be further away from us than it was at the time of the Greeks.

In the two preceding cases, we were able to impute this discrepancy to an incomplete knowledge which had led to diminishing the true distances, but in the present instance such a supposition is inadmissible. Considering the correctness of the account given by HERODOTUS and its accordance with material facts of an unvarying nature, we must admit, either that the dwarf race, seen

(1) MOLLIEN—*Voyage dans l'Intérieur de l'Afrique aux Sources du Sénégal et de la Sénégambie*—made in 1818. Paris, 1822, vol. II, p. 256. I will state with precision further on, the geographical localities inhabited by these small races lately examined.

by the Nasamons, still exists north of the Niger and has not yet been re-discovered, or that it has completely disappeared from that region.

Without wishing in any way to prejudge the future, I think the last hypothesis seems the most probable, and perhaps it must even also be applied to other countries where the ancients have placed their Pigmies. The Egyptians knew the Akkas under the name which they still bear, for M. MARIETTE-PACHA saw it inscribed near the figure of a dwarf sculptured on a monument of the old empire. ⁽¹⁾ In fact, even granting that they were able to explore the Nile far beyond the obstacles which have stopped us until lately, nothing, in my belief, entitles us to suppose that they took a westerly direction and crossed from the watershed of the Nile to that of the Ouellé. It seems to me much more rational to suppose that, at the time of ARISTOTLE, these Akkas tribes lived much further north, occupied at least the watershed of some tributary of the Nile, and perhaps reached the swampy region of the great river. Their retreat towards the south and west has nothing surprising in itself, for we shall see that, wherever we follow these small races, wherever we can gather sufficient information, they will appear to us as having been, in the past, more flourishing than at the present day, and as having also covered a more extensive and more continuous geographical area. Perhaps this general fact might be put forward to prove the accuracy of the account furnished by POMPONIUS MELA.

It was not under the attacks of animals—ærial or terrestrial—that these small men gave way, and that their communities were dispersed. We shall see, on the contrary, that some among them will face and conquer even the elephant. It is to human races taller and stronger than themselves that they are compelled to yield. These are, in Africa and Melanesia, the Negroes and Papuans; in the Malay countries, the different Malayan races; and in India, the Dravidians. In many places, in West Africa as well as in the Philippine Islands, and in the two Gangetic

(1) HAMY—*Essai de Coordination des Matériaux récemment recueillis sur l'Ethnologie des Négrilles ou Pygmées*, p. 21.

Peninsulas, the true Pigmies have exercised a certain ethnological influence by inter-breeding with the superior races and in thus creating half-bred populations. Almost everywhere, also, they are still represented by groups offering different degrees of purity.

On the whole, the ancients had gathered information more or less inexact and incomplete, but at the same time more or less true, of three dwarf races which they called *Pigmies*. One of them was situated in Asia, in the south-eastern extremity; the second in the south, near the source of the Nile; the third, in Africa also, on the extreme south-western limits of the known world. These three groups have been discovered again now-a-days, nearly in the same direction, but at a greater distance from Greece and Rome than is admitted by tradition.

They are, however, but fractions of two well defined groups occupying—one in Asia, the other in Africa—a considerable area, and comprising distinct tribes, populations, and even sub-races.

From the very first years of my professorship at the Museum, I proposed to unite all the black populations of Asia, Melanesia, and Malay regions, characterised by their small stature or the relative slightness of their limbs, into one *Negrito branch*, ⁽¹⁾ in opposition to the *Papuan branch*, in which I placed the oriental negroes remarkable for their height and sometimes athletic proportions. I have every reason to believe that, under one form or another, this division is generally adopted.

On his side, M. HAMY has shown, in a former account, that, contrary to the universally adopted idea, there exist in Africa certain negroes who differ from the classical type in a smaller size of the skull. ⁽²⁾

Pursuing this order of research, he discovered that this cephalic characteristic corresponded with a very perceptible

(1) I have thus applied to the whole race the name of the little negroes of the Philippines, also called *Aëtas*.

(2) *Cours d'Anthropologie du Muséum; Nègres Asiatiques et Mélanésiens*—Lectures which were written out by M. JACQUART, Assistant Naturalist—*Gazette Médicale de Paris*, 1862. In these lectures, I summed up what I had already said on the subject, during the preceding year. I had professed the same opinion and established this division in anterior lectures.

diminution in the stature. He gathered together the different observations which, up to then, had remained loose and scattered, and proved that Africa possessed, like Asia, a black sub-type, in which a remarkably reduced stature was one of the most striking features. He showed also that the African or Asiatic diminutive negroes, although so far apart, had many anatomical and other common points, and that these two groups were, in reality, two *corresponding terms*, geographical and anthropological at the same time.

M. HAMY proposed to give the name of *Negrillos* ⁽¹⁾ to the African dwarf tribes. This denomination, will, I think, be readily adopted by all anthropologists, and has the advantage of recalling one of the most important characteristics of the group as well as their link of connection with the Asiatic Negritos.

These are the two groups which I intend to resume the description of in the following chapters.

II.

THE ASIATIC PIGMIES, OR NEGRITOS.

GEOGRAPHICAL DISTRIBUTION AND PHYSICAL CHARACTER.

The Negrito race, either pure or more or less mixed, is distributed over an immense tract. Its habitat is both insular and continental. In islands and archipelagos, its existence is now recognised from the south-eastern regions of New Guinea in Melanesia to the Andamans in the Bay of Bengal; and from the Malay Archipelago to Japan. On the continent, their tribes are scattered about from the Malay Peninsula to the foot of the Himalaya, in Kamaon; and from the mountains of Assam to the right bank of the Indus, in Daman and Beloochistan; ⁽²⁾ that is to

(1) *Note sur l'Existence de Nègres Brachycéphales sur la Côte Occidentale d'Afrique.* (*Bulletin de la Société d'Anthropologie de Paris*, 2nd Series, 1872, vol. VII, p. 210.)

(2) I have already given a detailed account of this geographical anthropology in several papers, such as, *Etude sur les Mincopies et la Race Négrito en général* (*Revue d'Anthropologie*, 1872, vol. I), in an article of the *Journal des Savants*, 1872, touching EARL'S work on *The Native Races of the Indian*

say, over a tract of country extending from 65° to 145° east longitude and from 2° to 35° north latitude.

A race that has spread over so vast a space could scarcely have retained everywhere its identity. Thus I have been constrained, since 1872, to sub-divide it into two other branches—the Malay or oriental branch, and the Mincopie or western branch. ⁽¹⁾ So far, however, I had only been considering the exterior characteristics; the study of skulls has more recently led us—M. HAMY and myself—to define this division more distinctly, and to adopt two sub-races—the Papuan-Negritos, corresponding with the eastern branch; and the Negritos proper, representing the western sub-race. ⁽²⁾

Without entering into long details, it is easy to characterise these two secondary types. The Papuan-Negrito has a skull more elongated, from front to back, than his western brother, though still differing in a marked degree from the actual dolicocephaly, which is the mark of the Papuan. ⁽³⁾

The skin, moreover, is not so black; the nose is more flattened and the chin more receding; the loins, thighs and legs offer a greater development. In short, both in feature and general physique, the Papuan-Negrito is inferior to the Negrito proper ⁽⁴⁾

It is not easy to determine the respective limits of the two sub-races. Perhaps actual limits cannot be said to exist; mingled together, the two types may have produced a population of a

Archipelago; and also in a paper Nouvelles Etudes sur la Distribution Géographique des Négritos et sur leur Identification avec les Pygmées Asiatiques de Ctésias et de Plin. (*Revue d'Ethnographie*, vol. I, p. 179).

(1) *Etude sur les Mincopies*, p. 236.

(2) *Crania Ethnica*.

(3) The horizontal index varies from 80.00 to 84.00 with the Negrito; from 78.85 to 79.87 with the Papuan Negrito of New Guinea; from 69.35 to 78.23 with the Papuans of the same island. This last figure, very high and given by a woman's skull, might induce us to suspect the influence of cross-breed. I have already dwelt on these craniological differences, and will recall, moreover, that the Papuans are taller, stronger and more athletic than the Negritos. (*Journal des Savants*, 1872, p. 626.)

(4) In order to establish this differential characteristic, I took, as terms of comparison, on one side the Papuan Negrito, such as he was described by (RAWFURD, a description considered by EARL as very accurate; and on the other, the Mincopies of whom we possess now numerous photographs.

mixed character. We know, nevertheless, that the Andamanese and Philippine islanders belong to the Negrito branch, and the recent researches of M. MONTANO show that it is the same as regards the people of Mindanao. The Negritos of the continent seem to form part of the same type.

New-Guinea appears to be the centre of the Papuan-Negrito ⁽¹⁾ population which, according to EARL'S testimony, extends to Gilolo in the Moluccas. ⁽²⁾ On the one hand, M. HAMY has followed the type of the full-blood Negrito as far as Timor; ⁽³⁾ on the other, the individual seen at Epa by M. D'ALBERTIS appeared to have presented all the exterior characteristics of the Negrito proper, among others, the perfectly black colour and the absence of prognathism. ⁽⁴⁾ In return, the Hindoo Negritos of Armarkatak are, it seems, only of a deep brown colour. ⁽⁵⁾

In short, we know little enough about the Papuan-Negritos. This ignorance is, in a great measure, owing to the fact that they have been and are still too often confounded with the Papuans as I have lately had occasion to remark in referring to the works of WALLACE and EARL. ⁽⁶⁾ Many more recent travellers have fallen into the same error. M. MEYER, who resided some time in New Guinea, where he made a magnificent collection of skulls, leans to the opinion of WALLACE and combats the impression that the Negrito species is represented, within that island, by two distinct types. ⁽⁷⁾

⁽¹⁾ *Crania Ethnica.*

⁽²⁾ *The Native Races of the Indian Archipelago*—Preface, p. xii.

⁽³⁾ *Documents pour servir à l'anthropologie de l'île Timor.* (*Nouvelles Archives du Muséum d'Histoire Naturelle de Paris*, vol. X, p. 263.)

⁽⁴⁾ *New Guinea; What I did and What I saw*—by L. M. D'ALBERTIS, 1880. M. D'ALBERTIS'S travels were made from 1872 to 1875.

⁽⁵⁾ ROUSSELET—*Tableau des Races de l'Inde Centrale.* (*Revue d'Anthropologie*, vol. II, p. 280.)

⁽⁶⁾ *Journal des Savants*, 1872, pp. 106 and 627.

⁽⁷⁾ *Antropologische Mittheilungen über die Papuas von New-Guinea.* (*Mittheilungen der Anthropologische Gesellschaft in Wien*, 1874, vol. IV.) *Ueber hundert fünf und dreisig Papua Schädel von New-Guinea und der Insel Mysore.* (*Mittheilungen aus dem K. Zoologische Museum zu Dresden*, 1875, vol. I.) In his Monography of Papuans, published in our *Crania Ethnica*, M. HAMY made use of the figures given by M. MEYER, and showed that the German traveller had brought new evidence in support of the opinion he had himself combated.

M. BECCARI himself, although struck with the resemblance of certain New-Guineans to the Akkas, does not insist on this point, ⁽¹⁾ and the few words, borrowed by M. GIGLIOLI, ⁽²⁾ from a letter of that traveller, are not more instructive. M. D'ALBERTIS, while maintaining considerable reserve, which he explains by saying he does not know the Negrito type, at least understood that the individual he had before him at Epa was perfectly distinct from any he had seen until then. He thought that the point deserved to be studied.

Such has also been the opinion of Mr. LAWES, regarding the mountain tribes of Port Moresby. ⁽³⁾

After all, the most complete description of the Papuan-Negrito which has yet been published, is that which we owe to CRAWFURD. He expresses himself thus: "I do not think I ever saw any that "in stature exceeded five feet. ⁽⁴⁾ Besides their want of stature, "they are of spare and puny frames. Sir EVERARD HOME, who carefully examined the individuals brought to England by Sir STAMFORD RAFFLES, makes the following distinctions between the Papuan "and African negro: his skin (speaking of the former) is of a "lighter colour; the woolly hair grows in small tufts and each hair "has a spiral twist. The forehead rises higher, and the hind head "is not so much cut off. The nose projects more than the face; "the upper lip is longer and more prominent; the lower lip projects forward from the lower jaw to such an extent that the "chin forms no part of the face, the lower part of which is formed "by the mouth. The buttocks are so much lower than in the "negro as to form a striking mark of distinction, but the calf of "the leg is as high as in the negro ⁽⁵⁾.

(1) *Appunti etnografici sui Papua*. (Cosmos, 1877.)

(2) *Studi sulla Razza Negrita*. (Archivio per l'Anthropologia e la Etnografia, 1876, vol. V, p. 334.)

(3) *Ethnological Notes on the Motu, Koitapu and Koiari Tribes of New Guinea*. (Journal of the Anthropological Institute, vol. VIII, p. 369.)

(4) BECCARI assigns to the New-Guineans, whom he calls *Alfourous*, a stature of 1m51 to 1m53. According to M. LEON LAGLAISE, the Karons never exceed 1m60. (*La Papouasie ou Nouvelle-Guinée Occidentale*, par le Dr. Cte. MEYNIERS D'ESTREY, p. 121.) This tribe has perhaps become taller through cross-breed.

(5) *History of the Indian Archipelago*, vol. I, p. 23.

In support of this description, CRAWFURD borrows of RAFFLES the sketch of a young Papuan of New Guinea. ⁽¹⁾ The child in question was, it is true, only ten years old, and the youth of the subject is open to critical observation, but we must bear in mind that, with these populations, physical development is more early than amongst Europeans. This readily explains how EARL, so good a judge in matters of this kind, could affirm the resemblance of this portrait to that of an adult. He relates that, in one of his journeys, he had for companion a negro of Gilolo who exhibited all the features of the *Papuan* of RAFFLES and CRAWFURD. He thus testifies to the accuracy of the English writers, as well as to the extension of the type to the Indian Archipelagos.

From what we have just seen, this type is not distinguished for beauty of feature, and, when observed in its original country, the general proportions of the body are in exact keeping with the face. According to EARL again, these Papuans, when transported as slaves in the Malay islands and placed in conditions of comfort unusual to them, improve rapidly. Their slender limbs become more regular, rounder, and, so to speak, smoother; the vivacity and gracefulness of their movements make up for the unpleasing stamp which the face retains.

The deplorable confusion, which I pointed out just now, is the reason why the differential traits between the Papuan-Negritos and the real Papuans, have not been studied with regard to the social state, customs, religion and industry of these people. WALLACE and EARL go so far as to say that, tall or short, the Papuans have but one way of living. This assertion has always seemed to me rather difficult to accept, and the accounts which begin to reach us justify more and more my doubts on the subject. However, in the present state of knowledge, it would be no easy matter to determine with certainty the exact limit between the two races, all the more so that they must often have mingled and produced half-bred tribes ⁽²⁾. I will, therefore, content myself with referring the

(1) *History of Java*—by RAFFLES and CRAWFURD. Plate I.

(2) The tribes visited by Mr. COMRIE, in the neighbourhood of the Astrolabe Bay, appear to be in the same case. Out of 14 skulls, one only was sub-brachycephalic; the others were dolicocephalic. But the average stature of twenty men was 1^m 553 and even down to 1^m 321. These dwarfs could be neither Papuans nor half-bred Polynesians. The Negrito blood alone could have lowered the

reader to the most recent works on New Guinea, which has been a common centre of habitation to both types, who have there been able to develop themselves freely up to the present time. ⁽¹⁾

The Negritos proper are much better known than the Papuan-Negritos. In the middle ages, the Arabs, and no doubt the Chinese before them, knew that the Andaman Islands were inhabited by black and crisped-haired people. ⁽²⁾ When the Spaniards first came to the Philippines, they found there a population of Aëtas, whom we know to be of the same race as the Mincopies. ⁽³⁾ Since that time, as we have become better acquainted with the Malay islands and the two Indian Archipelagos, we have seen that the localities, inhabited by these diminutive negroes, were more extensive and numerous than we had thought at first, and having acquired every accurate information, we now find it possible to form a general opinion as to the race and the differences existing between the most distant tribes.

stature to that degree. This association of dolicocephalism and small stature is an example of the juxtaposition of characters on which I have often dwelt in a general manner, and which M. MONTANO has himself verified among the half-bred Negritos. (*Anthropological Notes on New Guinea* by Dr. COMRIE—*The Journal of the Anthropological Institute*, vol. VI, p. 102.)

(1) I would first recommend the travels of M. d'ALBERTIS here above-mentioned, and those of M. GIGLIOLI who, though he did not actually visit New Guinea, has gathered most interesting information on the specimens he met in different places, and imparted it to BECCARI. A summary of all the knowledge we have regarding these people, has been published by Count MEYNIERS D'ESTREY (*La Papouasie ou Nouvelle-Guinée Occidentale*). I will also refer to the two memoirs of M. MANTEGAZZA: *Studi antropologici ed etnografici sulla Nuova-Guinea* (*Archivio per l'Antropologia e la Etnologia*—1877, VII) and *Novi Studi Craniologici sulla Nuova-Guinea* (*Archivio*—vol. XI, 1881). In his first paper, M. MANTEGAZZA upheld the ethnological unity of all the New Guinea Negroes. Since then, he has been brought over to believe in the dualism of these races from the simple inspection of the skulls collected by M. d'ALBERTIS, and he has imparted his ideas to us in a paper addressed to the Anthropological Society of Paris (*Bulletins, 3me Serie*, vol. III, p. 214). Another paper by Mr. LAWES is also most instructive on the subject.

(2) SOLEYMAN'S accounts gathered by ABOU-ZEYD-ASSAM (*Relation des Voyages faits par les Arabes et les Persans dans l'Inde et la Chine, dans le IXme Siècle de l'Ere Chrétienne*—Texte arabe par LANGLES, 1881; traduction et éclaircissements par REYNAUD, 1849.)

(3) This name, given to the Andamanese, has caused many interpretations to be made. I gave an explanation of it a long time back. Lieutenant COLEBROOKE'S vocabulary tells us that the natives call their own country *Mincopie*. It is obvious that it got applied also to the inhabitants (*On the Andaman Islands*—by Dr. R. H. COLEBROOKE; *Asiatic Researches*, vol. IV, 1799, p. 385, alluded to in my paper on the Mincopies.

Let us say, to begin with, that these differences are very small when bearing on the characteristic which interests us the most, in fact the special feature which has led us to this investigation. Everywhere the stature of Negritos is sufficiently low to allow of their being placed among the smallest races on earth. The unanimous testimony brought by travellers during a long period has cleared up all doubt on the subject, but they only applied themselves to general and vague observations, we, on the contrary, possess at present exact and sufficiently numerous measurements for three of the principal Negrito stations, that is, for Luzon, the Andaman Islands and the Malay Peninsula.

Two French travellers—MM. MARCHE and MONTANO (¹)—have quite lately visited Luzon and measured native Aëtas, the former at Binangonan of Lampon on the Pacific Coast, the latter in the Sierra de Marivelès. They have kindly communicated the results to me, and authorised me to publish the following summary :—

		<i>Maximum.</i>	<i>Minimum.</i>	<i>Average.</i>
M. MARCHE,	{ 7 men	1 ^m 472	1 ^m 354	1 ^m 397
	{ 3 women	1 ^m 376	1 ^m 310	1 ^m 336
DR. MONTANO,	{ 18 men (²)	1 ^m 575	1 ^m 425	1 ^m 485
	{ 12 women	1 ^m 485	1 ^m 350	1 ^m 431

These figures would seem to show that the mountain population is, on the average, slightly taller than the coast tribes ; but it may be, perhaps, that M. MONTANO, having been able to measure a greater number of natives, has approached reality more closely.

(¹) MM. MARCHE and MONTANO were sent, on a scientific mission, to the Philippine Islands by the “Ministère de l’Instruction Publique,” and both fulfilled their duty in a most remarkable manner. M. MARCHE confined himself to exploring Luzon. His collections are very valuable in a zoological as well as anthropological point of view. The exhibition he made at the “Société de Géographie” drew very great attention by the variety and ethnological value of many of the articles exposed.

M. MONTANO, after having spent some time in the neighbourhood of Manilla, went over to Mindanao and explored some of the least known regions. He also brought back most important and varied collections. Moreover, he communicated to the “Société de Géographie” a mass of observations, notes, itineraries and maps, so complete and valuable as to deserve the “Prix Legerot” (gold medal), which was awarded to him on Dr. HAMY’s report at the public meeting of the 28th April, 1882.

(²) In a note he gave me, M. MONTANO remarks that, out of the 18 men he measured, 3 only exceeded 1^m50.

However, one sees that the mean height of these Philippine Aëtas—men and women—is about 1^m413.

Let us now pass to the other extremity of the maritime habitat of Negritos.

When I published the first results of my study of the Mincopies, the number of measurements taken of these islanders, amounted to five only ⁽¹⁾; they gave 1^m480 for the maximum height, 1^m370 for the minimum, and 1^m436 for the mean. Since then, Mr. FLOWER, adopting the method of OWEN, has attempted, in an excellent anatomical work, to determine the height of Mincopies from the inspection of 19 skeletons of men and women. ⁽²⁾ His results have been confirmed, in a most striking manner, by actual measurements taken by Mr. BRANDER of 15 men and as many women. ⁽³⁾

The following is a table of the figures obtained by these two distinct methods:—

		Maximum.	Minimum.	Average.
Mr. FLOWER,	{ men ⁽⁴⁾	1 ^m 600	1 ^m 385	1 ^m 448
	{ women	1 ^m 481	1 ^m 302	1 ^m 375
Mr. BRANDER,	{ 15 men	1 ^m 562	1 ^m 408	1 ^m 476
	{ 15 women	1 ^m 441	1 ^m 308	1 ^m 366

The difference is very small, and, for the average figures, amounts to 0^m028 for men, and 0^m009 only for women. Moreover, for the maxima and minima, the highest numbers balance each other; these variations must consequently be owing to real differences of height and not to the inductive method followed by one

(1) One of these measurements was not actually taken from the native's body but rested on calculations made by Mr. R. OWEN and was based on the relative proportion of the length of the femur to the total height of the individual. (*Transactions of the Ethnological Society*, vol II, p 40.)

(2) *On the Osteology and Affinities of the Natives of the Andaman Islands* by W. H. Flower (*Journal of the Anthropological Institute*, vol. IX, p. 108.)

(3) *Stature of the Andamanese*, in which Mr. FLOWER gives the results obtained by Mr. C. E. BRANDER. (*Journal of the Anthropological Institute*, vol. X, p. 124). Mr. BRANDER's paper came out in the *Proceedings of the Royal Society of Edinburgh*, 1878-1879, p. 416.

(4) The English anatomist does not indicate the number of skeletons of both sexes he had examined.

of the authors. They lead us to assign to Mincopies, taken in a body, a mean stature of 1^m416 exceeding by 3 millimètres only that of the Aëtas. If we simply take into account the actual measurements made by Mr. BRANDER, this average height becomes 1^m421 for Mincopies, and the difference between the latter and the Aëtas is not more than 8 millimètres.

The first accurate information on the height of Negritos living in the Malay Peninsula, has been furnished by Major MACINNES and given again by CRAWFURD. ⁽¹⁾ More recently still, the celebrated Russian traveller, M. MICLUKO-MACLAY, has published, on this people, a work which, to my regret, I only know through a summary given by M. GIGLIOLI. ⁽²⁾ Lastly, MM. MARCHE and MONTANO have collected new measurements which are rendered more interesting by the fact that the names of the different tribes referred to were taken with great care. The following is a summary of these records, with the exception of MACINNES' measurement which, as it relates only to one single individual, has now lost its former importance:—

		Maximum.	Minimum.	Average.
M. MICLUKO- MACLAY,	men ⁽³⁾	1 ^m 620	1 ^m 460	1 ^m 540 ⁽⁴⁾
	women	1 ^m 480	1 ^m 400	1 ^m 440
Mr. MARCHE,	10 Sakais ⁽⁵⁾	1 ^m 705	1 ^m 462	1 ^m 584 ⁽⁶⁾

⁽¹⁾ *History of the Indian Archipelago*, vol. I, p. 23. The height of the single individual examined by MACINNES is 1^m415.

⁽²⁾ *Nuove Notizie sui Popoli Negroidi dell'Asia e specialmente sui Negriti*. M. MICLUKO-MACLAY's Memoir, called *Ethnologische Excursionen in der Malayischen Halbinsel*, was published as an extract from the *Natuurkundig Tijdschrift of Batavia*. (*Archivio per l'Antropologia e la Etnologia*, vol. IX, p. 173.)

⁽³⁾ M. GIGLIOLI's summary does not indicate the number of individuals nor their origin.

⁽⁴⁾ In this case, the mean figures could not be deducted from the aggregate of observations, the number of which I don't know; they simply express the intermediate number between the maxima and minima.

⁽⁵⁾ M. MARCHE's measurements were taken at Naga-Barou in Pérak, and apply to adults only.

⁽⁶⁾ The average figures for MM. MARCHE and MONTANO are deduced from the whole of their observations.

M. MONTANO,	{	12 Manthras ⁽¹⁾	1 ^m 580	1 ^m 330	1 ^m 461
		8 Knabouis	1 ^m 578	1 ^m 455	1 ^m 517
		2 Udaïs	1 ^m 545	1 ^m 390	1 ^m 467
		2 Jakouns	1 ^m 550	1 ^m 525	1 ^m 537

According to these figures, the mean height in those different tribes would be 1^m507, thus exceeding by 0^m094 the stature of the Aëtas and by 0^m091 that of the Mincopies.

But we must take into consideration the influence of intermixture. One of the photographs, for which I am indebted to M. J. E. DE LA CROIX. ⁽²⁾ is most instructive in that point of view. It represents, at full length, seven Sakaïs. Three of them have smooth hair, the others have it more or less woolly; but these are much shorter than the former, the difference between extremes being about one tenth. It shows us that, in this tribe, the original negro type has been altered by mixture with a much taller ethnical element.

This fact, which can be ascertained at a glance, explains the difference, found by MM. MARCHE and MONTANO, between the maximum and minimum height of the aforesaid tribes and of the Manthras. This difference is 0^m243 for the former, and 0^m250 for the latter. Nothing of the kind exists with regard to the Aëtas and the Mincopies who have remained unmixed or very nearly so. With them the variation only reaches 0^m118, 0^m150 and 0^m154, according to actual measures taken on the body.

In fact, in all these tribes, whether insular or continental, the minima approach very near to each other, and it is among the Manthras that the smallest size has been met with. Between them and the Aëtas measured by the French travellers, and also BRANDER's Mincopies, the difference is only 24, 95 and 78 millimètres.

(1) In this table, I have put together the measurements taken on both sexes. Since this was written M. MONTANO has published another table in which the height of men and women is shown separately for the Manthras and Knabouis. He measured one woman only among the Udaïs and none among Jakouns. (*Revue d'Ethnographie*, vol. I, pp. 42 and 43).

(2) The two photographs, handed to me by this traveller, were taken by his companion M. DE SAINT POL-LIAS

We may consequently infer that the primitive Negritos of Malacca were not taller than the Aëtas or Mincopies. ⁽¹⁾

Our knowledge is much less advanced with regard to the Negritos of India. Here, cross-breeding has very nearly caused the primitive stock to disappear, so much so that the existence of real negroes in that country has, until lately, been formally denied. The observations of several English travellers, ⁽²⁾ and the evidence gathered by M. ROUSSELET, ⁽³⁾ must, however, have removed all doubt on the subject; they show us that a few rare and unaltered specimens of the primitive type are still to be found, but only in the most inaccessible and unhealthy parts of the country. Unfortunately, the information collected about them amounts to very little. The individual seen by our countryman, and of whom he made a portrait, ran away during the following night, terrified by the partial inspection he had undergone. English travellers, who have been able to examine them more leisurely, have gathered but very little information about them, in some instances they even are silent respecting their hair, their drawings alone affording information in that respect.

M. ROUSSELET, on the contrary, has not failed to mention the *woolly curls* which partly concealed the forehead of his Bandar-lokh. ⁽⁴⁾ This characteristic, certainly the most

⁽¹⁾ In order to have only the most accurate terms of comparison, I left out the measurements calculated by Mr. FLOWER, and also different observations on women taken by different travellers, as well as the figures obtained by M. MONTANO with regard to Udais and Jacouns, of whom he only measured two individuals.

⁽²⁾ I will chiefly mention the works of Mr. JUSTIN CAMPBELL—*The Ethnology of India* (*Journal of the Asiatic Society*, vol. XXXV, p. 2, Supplementary number); DALTON—*Descriptive Ethnology of Bengal*; FRYER—*A few words concerning the Hill-people inhabiting the Forests of the Cochin State* (*Journal of the R. A. S. of Great Britain and Ireland*, 2nd Series, vol. III). Among the plates published in these various works, several represent photographs of individuals whose Negrito type strikes one at the first glance.

⁽³⁾ *Tableau des Races de l'Inde Centrale* (*Revue d'Anthropologie*, vol. II, p. 276, with a plate and a map. Previously to this, I had inserted, in my *Etude sur les Mincopies*, a note transmitted to me by M. ROUSSELET himself and referring to the same subject.

⁽⁴⁾ Literally *men-monkeys*. That name has been given to these Negritos by the neighbouring tribes. They also call them Djangâl, or *jungle-men*, which is a generic name they apply to all populations more wild than themselves.

important of all when the negro race is in question, testifies to the purity of blood, though the colour of the skin was of a rusty-black. ⁽¹⁾ Let us add that his general physique, in spite of the alteration brought on by misery and hunger, was in exact keeping with the true Negrito type. His height, says M. ROUSSELET, was hardly 1^m50.

The Puttouas, measured by an English Officer, reached 1^m57, but the women were only 1^m291. According to DALTON, the size of the black and frizzle-headed Juangs is 1^m525 for men and 1^m416 for the women. Among the Oraons the maximum stature observed was 1^m57, and fell again to 1^m525 with the Bhûihers who, by their general physique, reminded him of the Andamanese. This last figure is often to be found in the description of other more strongly mixed tribes. The average of all these figures is 1^m488 at the outside. This group of populations is, therefore, similar, as regards height, to the preceding groups.

These differences in size can be expressed by figures, and can consequently be made obvious to every one; but it is otherwise with regard to other characteristics, such as the general proportions of the body, the features of the face, &c., of which only numerous drawings can convey a true notion. All I can, therefore, do is to summarise the impressions which I have gathered from the various documents fortunately put at my disposal. In writing these lines, I have, under my eyes, Colonel TYTLER's full length photographs ⁽²⁾ of seven Andamanese; the phototypes published by Mr. DOBSON, and representing, also in their full height,

The village visited by the English Officer belonged to the Puttouas, *leaf-men*, so called from the habit of women to wear, as only garment, two bundles of fresh leaves hanging in front and behind. (ROUSSELET.)

⁽¹⁾ This light colour is probably a consequence of the wretched existence of these tribes from time immemorial. It is known that under the effect of sickness, the African Negro becomes paler.

⁽²⁾ These two photographs represent a grown-up man, a young boy and five women or girls. In one of them, they are naked; in the other, they wear a kind of blouse tight round the neck and drawn round the waist by a belt. However elementary this costume may be, yet it is sufficient, in spite of their shaved heads, to remove somewhat of the strangeness they display when entirely nude.

divers groups of sixteen natives of the same islands; ⁽¹⁾ thirty-six photographs by M. MONTANO, showing the features of forty-eight Aëtas, men and women, young and old, pure and mixed; lastly, two photographs of Përak Sakaïs, taken by M. DE SAINT POL-LIAS, and kindly placed at my disposal by his fellow traveller, M. J. E. DE LA CROIX. ⁽²⁾

Never have such a quantity of authentic documents been collected. As I discuss them, I shall take the Mincopies as a term of comparison; owing to an isolation which has extended to this day, they have preserved an ethnical purity that is seldom to be found even among populations which are best protected from the infusion of any foreign blood.

What strikes us at first in the twenty-three portraits of Mincopies is a great similarity in the proportions of the body, and in the features of the face, and the almost identical expression of their countenance. Indeed, there is nothing surprising in the fact. Isolated for centuries ⁽³⁾ from the rest of the world, marrying only

(1) *On the Andaman and Andamanese* by G. E. DOBSON; *The Journal of the Anthropological Institute*, vol. IV, p. 457, pl. XXXI, XXXII, and XXXIII. These phototypes represent five men, seven women, and four young girls. The original photographs, such as Colonel TYTLER'S, were taken in the southerly part of the island known for a long time under the name of the Great Andaman, which ultimately was found to be divided by small channels into three distinct islets (See the map of E. H. MAN, Esq., in the *Journal of the Anthropological Institute*, vol. VII, p. 105).

(2) MM. DE SAINT POL-LIAS and J. E. DE LA CROIX were entrusted with a scientific mission by the "Ministère de l'Instruction Publique." M. DE LA CROIX intends publishing shortly his observations on these tribes. I have to thank him all the more for having communicated to me these photographs as well as notes to which I will refer hereafter.

(3) The Andaman Islands were known by the Arabs from the ninth century (*Relation des Voyages faits par les Arabes et les Persans dans le IX^{me} Siècle de l'ère Chrétienne* by ABOU-ZEYD-HASSAN, printed by LANGLES, 1811; translated by M. REYNAUD, 1849), but the reputation of barbarism and cannibalism attributed to the inhabitants had always kept travellers away. The same motive, and probably also the absence of cocoanut-trees, which are nowhere to be seen in this little archipelago, prevented the Malays from invading it as they did the Nicobars. In 1790, the English attempted to establish there a convict station (Fort Cornwallis) which was abandoned soon after. The scheme was taken up again and carried out in 1857. The new Settlement (Port Blair) attracted many travellers, among whom Dr. MOUAT deserves a special mention. Maps, drawings, photographs, complete skeletons, &c., were sent to Europe and examined by MM. R. OWEN and

among themselves, subject to the same conditions of life, the natives of the Great Andaman have preserved a uniformity of breed which we might compare to that of an animal race reared under a careful direction. The two sexes living exactly the same kind of life, it is not surprising that many of the differences which, in other countries, distinguish man from woman, should have disappeared.

The measurements, necessarily approximative, taken of the young girl placed in the centre of one of Mr. DOBSON's groups, have given me, regarding general proportions, a little over seven heads for the total height of the body. I had found the same ratio in examining the portrait of JACK ANDAMAN, published by M. MOUAT. ⁽¹⁾ In that respect, the Mincopies come very close to the Egyptian "Term" ⁽²⁾ measured by GERARD AUDRAN; and, as their heads are at the same time broader, they look larger as compared with the rest of their bodies.

The same characteristic is found again among Aëtas. I was, however, able to measure but one of the individuals photographed by M. MONTANO, the others having a too abundant crop of hair. His total height is hardly seven times the length of the head; and, as far as I can judge, the proportion seems to be the same with regard to the Sakaïs of M. DE SAINT POL-LIAS.

There is nothing surprising in this. QUÉTELET has well explained how, in our own country, this ratio changes and varies according to age and size. In the case of a child or a dwarf ⁽³⁾ the proportion

G. BUSK in England, by M. PRUNER-BEY and myself in France. I gave an historical and detailed account of it in my *Etude sur les Mincopies* (1872). In the present instance, I will only mention the works published since then.

(1) *Selection of the Records of the Government of India, No. XXV—The Andaman Islands*, Pref., p. xi, and frontispiece.

(2) According to the famous artist, this "Term" has $7\frac{1}{4}$ heads. The Pythian Apollo, who represents the other extreme of the measurements made by AUDRAN, has $7\frac{1}{2}$ heads. One knows that AUDRAN divided the head into ten equal parts, which were again sub-divided into twelve minutes. In order to establish an easier term of comparison, I have reduced those fractions to the same denominator.

(3) We mean here real dwarfs, and not the microcephalous beings too often confounded with them. I have already dwelt on this distinction in a note concerning the real dwarf who exhibited himself under the name of "Prince Ithazar." (*Bulletin de la Société d'Anthropologie*, 1881, p. 703).

between the head and the total height of the body is much greater than in the case of an adult or a giant. ⁽¹⁾ It is a continuation of the morphological transformation which begins immediately after birth. One might, therefore, expect to find the head of a Negrito comparatively larger than ours. Among the Mincopies, men or women, whose posture in the drawing allows us to judge of this detail, the body is very nearly all of a size and hardly gets wider at the pelvis and trochanters. ⁽²⁾ With young girls, the breast is very small and conical; with women, it is fuller and remains pretty firm. With both sexes, the chest and shoulders are wide, the pectoral muscles developed, the arm and forearm are muscular, at the same time preserving a well rounded outline. The hands are rather small, with long slim fingers, sometimes of a very elegant shape; the nails are long and narrow. The abdomen does not project too much. The lower limbs offer the same characteristics as the upper ones, though the thigh and leg are often less brawny than the arm or forearm.

The calf of the leg is generally placed rather high, at least in women. ⁽³⁾ This last characteristic, on which I insisted in my first articles, as recalling one of the traits of the African negro, is wanting in the only man whose legs are conspicuous in Mr. Dobson's phototypes, for his calf is prominent and perfectly well shaped. ⁽⁴⁾ Lastly, in the pictures where the individual is placed

(1) QUETELET—*Anthropométrie*, p. 205, &c.

(2) I had already made this remark in my first memoir. To this M. GIGLIOLI objected by putting forward one of the women, whose pelvis, says he, is rather wide. If this is the case, that woman is certainly not represented in the plate published by him. (*Viaggio intorno al Globo della pirocorvetta italiana "Magenta,"* p. 249; and *Studi della Razza Negrita*, (*Archivio*, vol. V, p. 308.)

(3) This characteristic is remarkable with three of the women represented in Colonel TYTLER's photograph. As for the man's legs, they are hidden.

(4) Loc. cit., pl. XXXI. This same individual is noticeable for his general aspect. Everything in him indicates strength. The chest is wide, the pectoral muscles are developed, like in all the other men; the thighs are very brawny. And yet we find here again a roundness of outline, a want of projecting muscles, which have already been pointed out in many savages, particularly among Americans.

so as to be well seen, the foot is small, high and arched, and the heel by no means projects backwards. (1)

M. MONTANO's photographs show, with regard to Aëtas, very nearly similar characteristics for the upper part of the body. The shoulders and chest are wide, the pectoral muscles well developed, the arms are fleshy and without too great a projection of the muscles. But the waist is noticeable and rather small in a certain number of men and women. The lower limbs, in both sexes, with the exception of two or three women, are less developed than the upper ones, and are at times really slender. Owing to this, and also to the posture they assume in the photograph, the feet of a certain number of them appear bigger and wider than those of the Mincopies.

It is quite different with regard to the Sakais, especially those whose hair proves them to be true Negritos. Their lower limbs are quite as well developed as the upper ones; one of them, in particular, is remarkable for the size of his legs and arms, and yet the outline of his body has lost nothing of its roundness. With all of them the calf is placed where it ought to be, according to our European notions, and the feet are like those of the Mincopies; at all events the heel does not protrude in any exaggerated degree.

In reality, the only characteristics in which the Mincopies agree with the African negro are their hair and complexion. In all my photographs, the head is entirely shaved, but the unanimous testimony of travellers leave no doubt as to the woolly appearance of the hair. FFYTCHÉ, MOUTAT, &c. add that the hair seems to grow in tufts and forms these peculiar *gromérules* so often noticed by travellers with regard to certain Papuans. M. GIGLIOLI has verified, in two photographs, the accuracy of this information. (2) The portraits of a few Aëtas and Sakais show the same characteristic. It follows that half-breeds have, according to the degree of intermixture, wavy, curly, or frizzled hair, entirely different from

(1) Colonel FFYTCHÉ had already insisted on that point as a mark of distinction between the Andamanese and the African Negrito. *On certain Aborigines of the Andaman Islands*. (*Transactions of the Ethnological Society*, new series, vol. V, p. 40.)

(2) *Studi sulla Razza Negrita*, p. 309.

that of Malay populations. ⁽¹⁾ Mr. FLOWER, on his part, has observed that their hair is more elliptical in section than that of any other human race. ⁽²⁾

All travellers affirm that the Aëtas, like the Mincopies are of a decidedly dark complexion. ⁽³⁾ As for the half-breed tribes of Malacca, the mixture of blood seems to have produced a lighter colouring of the skin. In a note which M. MONTANO kindly wrote to me, he describes those he saw in the neighbourhood of of Kessang (north of Malacca) as having often a fuliginous skin. Judging from the photographs, they seem to be even of a darker shade. A statue of *black bronze* would give the very same effect as the robust Sakai to whom I have already alluded.

In spite of the similarity of hair and complexion, it is, however, impossible to confound a Mincopie with a true African negro, the divergence being much too great in the shape of the head and the features of the face. The head, seen in front, appears to have a globular appearance, instead of being compressed and elongated. The forehead is wide and in many cases prominent, in lieu of being narrow and slanting. ⁽⁴⁾ The face widens out at the cheek-bones, which draw out the cheeks rather too much. The ears, most conspicuous on their shaved heads, are small and well shaped; the nose is very depressed at the root, straight, and rather short than otherwise; nostrils not too full, generally narrow; ⁽⁵⁾ the lips, though not very thin, do not project as in the Negro, and above all are not heavy at the commissure; the chin small, rounded and hardly retreating. Prognathism can scarcely be said to exist.

(1) Unpublished note communicated to me by M. MONTANO.

(2) *Loc. cit.*, p. 127.

(3) I refer the reader to my quotations of Messrs. MOUAT, TYTLER, COLEBROOKE, ST. JOHN, &c. (*Etude sur les Mincopies*). SYMES and Colonel TYTLER are the only ones who have alluded to a *sooty-black* complexion. I have already remarked that this description is probably due to their having seen individuals who still retained traces of the 'yellow earth' with which they are in the habit of covering their body as a protection against mosquitos.

(4) This trait is very remarkable in the only woman seen *de profil* in the photograph of Colonel TYTLER, which has been reproduced in my *Etude*. All the individuals depicted by Mr DOBSON have been taken full face, as well as those represented in M. GIGLIOLI's engraving.

(5) For instance, the chief represented by Mr. DOBSON, *loc. cit.*, pl. XXXI.

Lastly, the men seem but seldom to have traces of a moustache. ⁽¹⁾

As one examines one by one the twenty-three photographs, which I have under my eyes, it is easy to discover many individual differences, and yet it is impossible not to be struck by the general uniformity of the physiognomy. This result is chiefly due, no doubt, to the peculiar shape and disposition of the eyes. ⁽²⁾ They are round and rather projecting, pushed back to the sides, and further apart than with us, ⁽³⁾ giving thus to the countenance a peculiar and strange expression; but they are bright and very strong as is usual among savages.

This separation of the eyes is not so great nor so common among *Aëtas*. It is, therefore, not surprising that the physiognomy of these two races should be different. Furthermore, though the features indicate in reality a variety of the same type, they are usually coarser in the Philippine Negro. The forehead remains wide and rounded off, as is easily seen when it is not covered by hair; but the root of the nose is more depressed, nostrils wider and fuller, lips thicker, not however to the same degree as in Negroes; their commissure sometimes more fleshy. Lastly, the chin recedes, but less than in the Papuan-Negrato, and when cross-breeding does not interfere, the *Aëtas* seem to be as beardless as the Andamanese.

The photographs, taken by M. DE SAINT POL-LIAS, show that the Malacca Negritos are in feature more like *Aëtas* than Mincopies. Such is the case also with the Indian Negrato, as far as we can

(1) Hairy covering is equally absent on the body, except in the places of election.

(2) In the plate which I have published, the engraver has reproduced the model, and particularly the eyes, very badly. Of this I have been careful to warn the reader. However, as he has indicated well the space between the eyes, the general physiognomy has been pretty well preserved.

(3) This character is well shown by the photographs of Colonel TYTLER and by Mr. DOBSON's phototypes. It is wanting, on the contrary, in most of the individuals represented in the plate published by M. GIGLIOLI. Moreover, the physiognomies in the latter engravings recall in no way those of which I have just spoken. The shape of the head is perfectly different to what it looks like in the photograph, and even differs from the description given by the author himself (p. 249). Among others, I will point to the tall individual standing up on the left. Can he be called a half-cast? Or is it the fault of the artist who copied the photograph badly?

judge from M. ROUSSELET's ⁽¹⁾ drawing. Only, here the type has been degraded by the miserable conditions of life in which the Djandals are placed in Amarkantak. The forehead has become depressed, the nose has got bigger, and the lips thicker, though not projecting so much as in the Papuan-Negrito, the chin hardly receding. In spite of this physical degradation, these unfortunate Negritos are far from having assumed the well-known countenance of the African Negro, still less the look of a monkey, or any other animal. On the other hand, the Oraon and the two Santals, represented at full length by Mr. DALTON, unmistakeably remind us of the Negrito type ⁽²⁾; the same is the case with regard to some of the Mulchers depicted by Mr. FRYER. ⁽³⁾

This description would not be complete if I did not say a few words regarding the skeleton: but I shall be very brief, and, for further information, will refer the reader to technical publications, and more especially to Mr. FLOWER's exhaustive work. ⁽⁴⁾

The skeleton of the Mincopie, although small, presents no sign of degeneracy or weakness. The bones are comparatively thick, the muscular points well defined and at times remarkably conspicuous. The relative proportions of the bones, the shape of the pelvis, &c., are not far from the average of what exists with the Australian or the Negro.

It is quite otherwise with regard to the head. The Australian and the true African Negro are dolicocephalous, whereas, as I have already had occasion to observe, all Negritos are more or less brachycephalous. This latter characteristic is, therefore, to be found among the Mincopies, ⁽⁵⁾ and is associated with others which give

(1) *Loc. cit.*, p. 280.

(2) *Loc. cit.*, Frontispiece and p. XXIX.

(3) *Loc. cit.*

(4) The Memoirs of Messrs. OWEN, BUSK, PRUNER-BEY, quoted in my *Etude sur les Mincopies*, may be consulted, the latter also, as well as the *Crania Ethnica*, p. 183, pl. XIII to XVIII.

(5) M. HAMY and I have found, for the horizontal index of the Andamanese, 82.38 for men, and 84 for women. Mr. FLOWER's measurements, made on a much larger number of skulls, reduce it to 80.50 and 82.70. It will be seen that the difference between the two sexes remains very nearly the same, and that the women are more brachycephalous than the men.

a peculiar stamp to the skull, allowing often of its being distinguished at a first glance. Moreover, there are not more divergences in the skeleton than in the body. Mr. FLOWER has insisted on this point, and declared that, in no other race, would it be possible, unless an intentional and rational choice were made, to gather such a number of identically shaped skulls. It is evident that the causes, which I have pointed out above, have produced this uniformity in the osteological characteristics as well as in the outward form.

The Mincopie's head, ⁽¹⁾ although large as compared to the size of the body, is, as a matter of fact, very small. Seen in front, and better still from behind, the cranium is obviously pentagonal. The face is massive, owing chiefly to the width of the zygomatic arches, to the small depth of the fossa-canina and also to the direction of the ascending apophysis of the maxillar. Instead of winding round so as to raise and reduce the frame of the nose, it rises straight up; as a consequence, the inter-orbital space is considerably enlarged, and the bones of the nose can join but at a very obtuse angle. One thus understands how the shape and disposition of this bony structure can control and explain the exterior characteristics to which I have alluded above. Mr. FLOWER has also insisted, as I had done myself, on these peculiarities of the facial bones. ⁽²⁾ Let us add that, among pure Aëtas, this feature is as well defined as in Mincopies.

I shall finish this brief summary with a quotation. After having minutely and for a long time examined twenty-four skulls of Mincopies, Mr. FLOWER wrote: "My present impression is, that "I could never fail to recognize the skull of a genuine Andamanese

(1) Their cranial capacity, according to Mr. FLOWER, is only of 1.244 cubic centimètres for men, and 1.128 for women. BROCA had found higher figures, but he had only seven skulls at his disposal. He gives as average of the cranial capacity of 124 modern Parisians 1.558 cubic centimètres for men, and 1.337 for women. The lowest average he ever found was that of the Nubians (1.329 and 1.298 cubic centimètres). It is apparent, therefore, in accordance with Mr. FLOWER's opinion, that the Mincopies are, in that respect, the very lowest of human races.

(2) Among the Papuan-Negritos, the same characteristics are to be found, though not so well defined.

“as being such, and that I have never seen a skull from any other part of the world that I should assign to a native of these islands.” (1)

These lines of the eminent English anatomist explain how it is possible to trace out and recognize this type, even when seen far away from the land where it has preserved its integrity. The craniological characters have a great persistence ; when cross-breeding interferes, they sometimes modify each other reciprocally, but often also, perhaps more usually, a kind of separation takes place and the two types are respectively represented, in half-casts, by a certain number of well defined traits. When these traits are very special, like those I have just pointed to, they can easily be distinguished. This is how M. HAMY and myself have been able to certify that the Negrito element has played a more or less important part in the formation of the Bengal and Japanese populations.

(*To be continued.*)

(2) *Loc. cit.*, p. 112.